



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,727	09/17/2003	Juan Antonio Moncada Andres	71601	4363

7590 01/25/2006
Dennis V. Carmen
Eastman Chemical Company
P.O. Box 511
Kingsport, TN 37662-5075

EXAMINER

ROBERTSON, JEFFREY

ART UNIT PAPER NUMBER

1712

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,727

Applicant(s)

MONCADA ANDRES ET AL.

Examiner

Jeffrey B. Robertson

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11 and 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 21-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner was not able to find support in the specification for the limitation that the loading bin contains a mixer.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1, 2, 6, 10, 11, 13, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (U.S. Patent No. 3,700,140) taken with Nichols et al. (U.S. Patent No. 5,876,644).

For claims 1, 8, and 10, Harvey teaches a system for combining dissimilar granules where separate streams of granules are fed through a common feed pipe (conduit) in predetermined ratios to a container. Col. 1, lines 39-63. Harvey teaches that the container is a storage container. Col. 2, line 40. This storage container would then be distributed to an end user.

For claims 9 and 19, Harvey teaches that the dispensing of materials is controlled through a ratio programming board. Col. 2, lines 59-65.

For claims 1-5 and 10-14, Harvey does not expressly teach that VPET and a PMC are used as the granule materials.

For claims 1, 2, 10, 11, and 20, Nichols teaches blending post-consumer polyethylene terephthalate with virgin polyethylene terephthalate in col. 5, lines 24-31. However, Nichols fails to specifically teach the method or system used to accomplish the blending.

Nichols and Harvey are analogous art in that they both describe the blending of solid materials. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the process set forth in Harvey for blending the materials set forth in Nichols. The motivation would have been that Nichols sets forth a blending operation but does not set forth how it is to be accomplished. One of ordinary skill in the art would have turned to Harvey for that information.

For claims 6 and 15, the ratio of PCR and VPER are result effective variables that would be determined according to the desired properties of the resulting blend. For claim 13, the blend would inherently give rise to a different characteristic than molded unmodified VPET.

5. Claims 1, 2, 6-11, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powers et al. (U.S. Patent No. 6,403,748) taken with Nichols et al. (U.S. Patent No. 5,876,644).

For claims 1, 8, 10, and 20, Powers teaches a process that combines two different granules through a conduit. Powers teaches that the blend can then be discharged into a shipping container. Col. 3, lines 13-35. This shipping container would then be

distributed to an end user. For claim 13, the blend would inherently give rise to a different characteristic than molded unmodified VPET.

For claims 7, 16, and 20, Powers teaches that the blends can be transferred to an empty bin. Col. 6, lines 10-12.

For claims 9 and 19, Powers teaches that the dispensing of materials is controlled through an automated system or computer model. Col. 5, line 58 through col. 6, line 4.

For claims 17 and 18, Powers teaches that the feed can be controlled through the use of valves, including rotary valves. Col. 6, lines 29-32.

For claims 6 and 15, the ratio of PCR and VPER are result effective variables that would be determined according to the desired properties of the resulting blend.

For claims 1, 2, 10, 11, and 20, Powers does not expressly teach that VPET and a PMC are used as the granule materials.

For claims 1, 2, 10, 11, and 20, Nichols teaches blending post-consumer polyethylene terephthalate with virgin polyethylene terephthalate in col. 5, lines 24-31. However, Nichols fails to specifically teach the method or system used to accomplish the blending.

Nichols and Powers are analogous art in that they both describe the blending of solid materials. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the process set forth in Powers for blending the materials set forth in Nichols. The motivation would have been that Nichols sets forth a

blending operation but does not set forth how it is to be accomplished. One of ordinary skill in the art would have turned to Powers for that information.

6. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (U.S. Patent No. 3,700,140) taken with Nichols et al. (U.S. Patent No. 5,876,644) as applied to claims 1 and 10 above, and further in view of Schmidt et al. (U.S. Patent No. 5,952,066).

The limitations of claims 1 and 10 are described above. Harvey taken with Nichols does not expressly set forth the presence of other additives.

For claims 5 and 14, Schmidt teaches that oxygen-scavenging additives are added to PET materials used in food packaging. Col. 1, lines 13-24.

Schmidt and Nichols are analogous are because they both teach the use of PET materials in food applications. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the oxygen scavengers of Schmidt to the blends of Nichols. The motivation would have been that oxygen scavengers are commonly added to food packaging materials to aid in preserving the packaged food.

7. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powers et al. (U.S. Patent No. 6,403,748) taken with Nichols et al. (U.S. Patent No. 5,876,644) as applied to claims 1 and 10 above, and further in view of Moller (U.S. Patent No. 5,110,521).

The limitations of claims 1 and 10 are described above. Powers taken with Nichols does not expressly set forth the presence of other additives.

For claims 5 and 14, Schmidt teaches that oxygen-scavenging additives are added to PET materials used in food packaging. Col. 1, lines 13-24.

Schmidt and Nichols are analogous are because they both teach the use of PET materials in food applications. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the oxygen scavengers of Schmidt to the blends of Nichols. The motivation would have been that oxygen scavengers are commonly added to food packaging materials to aid in preserving the packaged food.

Response to Arguments

8. Applicant's arguments filed 11/9/05 have been fully considered but they are not persuasive. Applicant argues that Harvey does not relate to establishing homogenized blends of materials but to obtaining heterogeneous catalyst profiles. The examiner disagrees. The Harvey reference is directed to a method and apparatus for feeding granular or pellet materials. Col. 1, lines 33-35. In column 3 lines 23-27, Harvey teaches that any containers may be filled via the apparatus and method set forth in the patent. The patent is not limited to catalyst applications. Therefore, the examiner's position is that one of ordinary skill in the blending art would have turned to Harvey for particular blending method and apparatus constituents. Applicant argues that Harvey does not teach bulk containers, transporting the blend to an end user, or the presence of a loading blend. The examiner disagrees. Harvey teaches a loading bin in col. 2, line 41, and a bulk container in column 1, line 45. Regarding transportation of the blend to an end user, this limitation is met in Figure 1 of the Nichols reference where the blend is sold to customers, which necessarily involves transportation.

Applicant argues that the Nichols patent does not relate to blends of VPET and post-consumer recycled PET but to blends of prepolymers that must afterward be subjected to solid-state polymerization prior to use. Although the examiner agrees that solid-state polymerization is performed, applicant's claims allows for additional steps due to the presence of the term "comprising" in the claim. While Nichols may refer to each individual PET as a "prepolymer", both the VPET and PCR meet the limitations set forth by applicant in the claims. Therefore, applicant's arguments are not persuasive.

Regarding the Powers reference, applicant argues that Powers does not relate to virgin polyester nor components used to modify it and therefore cannot be used in combination with the Nichols reference. The examiner disagrees. The Powers reference relates to blending resin products and thus is analogous art to the Nichols reference, which teaches the blending of two specific resins. Applicant argues that the Powers reference does not provide for a loading bin. However, Powers appears to teach a loading blend in col. 3, line 22 or col. 3, line 35. Applicant's arguments regarding the Nichols reference are addressed above.

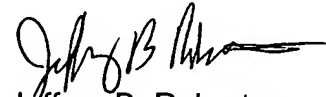
Applicant's arguments with respect to the Moller reference are moot because the rejection using this reference has been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR